AMENDMENTS TO THE SPECIFICATION

Please amend the specification at page 5, beginning at line 5 as follows:

The preferred embodiment utilizes a pigment that includes a small amount of a dispersing agent, such as ~~propryonic~~ propionic acid. For example, the pigment which is predominantly uncalcined zinc oxide may also include approximately 1/2% by weight of the ~~propryonic~~ propionic acid.

Please amend the specification at page 7, beginning at line 18 as follows:

Various aspects of the invention disclosed herein relate to radiant energy transducer systems, particularly luminaires and light detector systems, incorporating a reflector that uses a diffusely reflective coating formed of a white oxide pigment and an inorganic binder. The preferred coatings comprise uncalcined zinc oxide pigment and a potassium silicate binder, and may include a relatively small amount of ~~propryonic~~ propionic acid as a dispersing agent. Other aspects of the invention relate to reflectors for use in such systems, which comprise a substrate and the inventive coating. Other aspects of the invention relate to techniques for preparing and applying the coating to the substrate of a reflector, in a manner amenable to mass-production.

Please amend the specification at page 9, beginning at line 22 as follows:

The presently preferred embodiment utilizes Kadox 930C as the white pigment. The C indicates that there is approximately 1/2 % ~~propryonic~~ propionic acid by weight, included with the uncalcined zinc oxide, to serve as a dispersing agent. In exemplary embodiments, this pigment is mixed with of a potassium silicate binder, such as Kasil 2130. The mixture initially

includes a sufficient amount of deionized and/or distilled water to enable application of the material as a paint, for example by spraying onto the surface of the substrate 13. In embodiments that have been tested and found adequate for spray painting, the aggregate was mixed, for as little as three to five minutes in a shear mixer, such as a blender, at a spindle speed of 1000-2000 rpm. Additional amounts of water may be used if a thinner mixture is desired, for example, to allow dipping of optical substrate components, such as glass light bulbs, into the paint.

Please amend the specification at page 12, beginning at line 26 as follows:

The "zo" in Table 2 refers to the pigment comprising zinc-oxide and approximately 1/2 % of dispersing agent, such as ~~propryonic~~ propionic acid. The "ps" in the table refers to the binder, in the preferred embodiment, potassium silicate. The amounts and percentages shown are those in the liquid state after mixing, that is to say before paint application to the reflector surface. The mixtures shown in the table are generally adequate for producing diffusely reflective coatings as discussed above relative to Figs. 1A and 1B.

Please amend the specification at page 17, beginning at line 15 as follows:

In this simple embodiment, the base 61, with the cavity 63 and shoulder 65 are formed as a single integrated first reflector unit. This unit comprises a substrate 73 of appropriate shape, formed of steel or aluminum or an aluminum alloy. The reflector unit also includes a reflective coating 75 painted onto the surfaces of the substrate that form cavity 63 and the shoulder 65, to give those surfaces the desired diffuse reflectivity. In accord with the inventive principles, the coating 75 consists of the paint mixture, consisting essentially of the uncalcined zinc oxide pigment with a small amount of ~~propryonic~~ propionic acid and the potassium silicate binder. In

the context of the constructive occlusion type system 60, this material provides a highly efficient Lambertian surface having a diffuse reflectance of more than 95%, for visible and near-infrared wavelengths. A Lambertian surface emits light with substantially uniform intensity in all directions.

Please amend the specification at page 17, beginning at line 26 as follows:

The mask 69 is essentially forms a second reflector unit, manufactured in accord with aspects of the invention. At least the surface of the mask 69 facing toward the aperture 67 is formed in a manner similar to that used to create the reflective surfaces on the base. Hence, the exemplary mask 69 comprises a substrate 77 of appropriate shape, formed of steel or aluminum or an aluminum alloy. In the example, the mask is relatively flat, although it may have a variety of other shapes, for example to help enclose a relatively large embodiment of the lamp 71. The mask 69 also includes a reflective coating 79 painted onto the surface or surfaces of the substrate 77, to give that surface or those surfaces the desired diffuse reflectivity. Although shown on only the facing surface, it is often desirable to similarly coat the ends/sides of the mask and sometimes even the opposite surface of the mask. In accord with the inventive principles, the coating 79 consists of the paint mixture, consisting essentially of the uncalcined zinc oxide pigment with a small amount of ~~propryonic~~ propionic acid and the potassium silicate binder.